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| 10/789,563 | 02/27/2004 | Quang Le | HIT1P070/HSJ920030270US1 | 9237 |
| 28875 | 7590 | 10/24/2006 | EXAMINER | |
| Zilka-Kotab, PC P.O. BOX 721120 SAN JOSE, CA 95172-1120 | | | WATKO, JULIE ANNE | |
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| DATE MAILED: 10/24/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,563

Applicant(s)

LE ET AL.

Examiner

Julie Anne Watko

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/27/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I, claims 1-11 and 20 in the reply filed on August 24, 2006, is acknowledged. Claims 12-19 are withdrawn from consideration as drawn to a non-elected invention.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "318" has been used to designate both alumina fill (see Fig. 3) and a taper (see Fig. 10). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves

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modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

4. The abstract of the disclosure is objected to because it does not include that which is new in the art. Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities:

On page 12, line 5, "Fig. 10A and 10B" is inconsistent with the appearance of Fig. 10.

On page 12, line 16, "pedestal 320" is inconsistent with page 12, line 15, "write pole 320".

Appropriate correction is required.

Claim Objections

6. Claim 2 is objected to because of the following informalities:

Claim 2 recites the limitation "said widest portion of said write pole" in the last line. No "widest portion" has been previously recited. The Examiner suggests --said wide[st] portion of said write pole -- for consistency with line 2.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu et al (US PAP No. 20050068671 A1).

As recited in claim 1, Hsu et al show a magnetic write element (see Figs. 4-5) for perpendicular recording comprising: a write pole (including 42), at least a portion 42 of said write pole having a first and second lateral sides defining a track width, a trailing magnetic shield (including 44B), a write gap (between 42 and 44B) separating said magnetic trailing shield 44B from said write pole 42; and at least a portion 44B of said trailing shield having first and second lateral sides laterally aligned with at least a portion of said first and second lateral sides of said write pole (see Fig. 5; see also ¶0025, “cross-track width of the tip 44B is comparable to the width of the main pole piece 42 at the ABS”).

As recited in claim 3, Hsu et al show that at least a portion of said magnetic write pole (including 42 and 41) is formed of laminated magnetic layers (42 and 41).

As recited in claim 5, Hsu et al show that said magnetic shield includes a first portion 44B and a second portion 44A, said first portion having said first and second sides in substantial alignment with said first and second sides of said write pole (see Fig. 5; see also ¶0025, “cross-track width of the tip 44B is comparable to the width of the main pole piece 42 at the ABS”), and

wherein said second portion 44A of said shield has first and second sides extending laterally (see Fig. 5) beyond said first and second sides of said first portion 44B.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 2, 4, 6-11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al (US PAP No. 20050068671 A1).

Hsu et al show a magnetic write element as described above for claims 1, 3 and 5.

Hsu et al are silent regarding the dimensions recited in claims 2, 4 and 6-11.

It is notoriously old and well known in the magnetic head art to routinely modify a magnetic head structure in the course of routine optimization/ experimentation and thereby obtain various optimized relationships including those set forth in claims 2, 4 and 6-11.

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It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the magnetic head of Hsu et al satisfy the relationships set forth in claims 2, 4 and 6-11. The rationale is as follows: one of ordinary skill in the art would have been motivated to have had the magnetic head of Hsu et al satisfy the relationships set forth in claims 2, 4 and 6-11 since it is notoriously old and well known in the magnetic head art to routinely modify a magnetic head structure in the course of routine optimization /experimentation and thereby obtain various optimized relationships including those set forth in claims 2, 4 and 6-11. Moreover, absent a showing of criticality (i.e., unobvious or unexpected results), the relationships set forth in claims 2, 4 and 6-11 are considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which when the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

As recited in claim 20, in addition to the above teachings, Hsu et al teach a magnetic recording system comprising a magnetic medium movably held, and a magnetic write element connected with a slider (see ¶ 0002, “magnetic disk recording system a slider containing magnetic transducers for reading and writing magnetic transitions flies above the disk while it is being rotated by a spindle motor”).

As recited in claim 20, Hsu et al are silent regarding a housing; an actuator; the slider connected with said actuator for movement relative to a surface of said magnetic medium.

Official notice is taken of the fact that it was known in the art at the time the invention was made to connect a slider to an actuator for movement relative to a surface of a magnetic medium within a housing.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to locate the medium, slider and magnetic write element of Hsu et al within a housing, and to attach the slider to an actuator for movement relative to the medium surface as is notoriously well known in the art. The rationale is as follows: one of ordinary skill in the art would have been motivated to read and write data from different tracks in an environment protected from debris and humidity as is notoriously well known in the art.

Conclusion

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Anne Watko whose telephone number is (571) 272-7597. The examiner can normally be reached on Monday through Friday, 1PM to 10PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Julie Anne Watko, J.D.
Primary Examiner
Art Unit 2627

October 20, 2006
JAW

A handwritten signature in black ink, appearing to be 'JAW', written over a horizontal line.